

REMARKS

This paper responds to the Office Action mailed April 18, 2007. Claims 1-6 are pending in the application. Claim 1 is amended. Claims 1-6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent No. JP11328181 to Matsumoto ("Matsumoto"), in view of Japanese Patent No. JP10222501 to Hayashi ("Hayashi"), in further view of U.S. Patent No. 5,675,817 to Moughanni et al. ("Moughanni"). The Information Disclosure Statement filed on April 2, 2004 has been placed in the application file but has not yet been considered as the Office Action alleges that the Information Disclosure Statement failed to comply with 37 C.F.R. § 1.98(a)(2). The Applicant respectfully traverses.

First, Applicant thanks the Examiner for the withdrawal of the double patenting rejection under 35 U.S.C. §121.

Information Disclosure Statement

The Office Action states that the Information Disclosure Statement filed on April 2, 2004 fails to comply with 37 C.F.R. § 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. Applicant encloses copies of the following documents indicating receipt by the U.S. Patent Office of in U.S. Patent Application No. 09/727,679, now U.S. Patent 6,839,877 to Iwata, of which the present application is a divisional:

- 1) the stamped Information Disclosure Statement dated May 23, 2002 ("the May IDS"); and

2) a July 1, 2004 Request for Supplemental Notice of Allowance ("the July Request") and its stamped postcard.

First, the copy of the May IDS proves that the Examiner did consider reference BH (JP 11-110373) and made it of record.

Next, Applicant respectfully re-submits, per the July Request, that the explanation of relevance for the listed references BA (JP-6-96056), BB (JP-9-325958) and BC (JP-10-98544) is contained in the Specification of the Application. For the Examiner's convenience, the copy of the July Request resubmits pages 1 to 5 of the Specification that pertain to the relevance of the references.

The July Request also encloses a copy of the postcard indicating receipt by the U.S. Patent Office of the March 20, 2003 Information Disclosure Statement. The stamped postcard is proof that the copy of the Japanese Office Action dated February 25, 2003 (and English translation of the relevant portion) was provided for the explanation of the relevance of the cited references BI (JP-9-146938), BJ (JP 2000-299699), BK (JP 2000-102048), and BL (JP-2001-56791). The July Request also encloses another copy of the English translation of the Japanese Office Action.

Finally Applicant notes that references BD (EP-0817143) and BE (EP- 0686949) are in English and require no translation. The May IDS shows that the UK Search Report dated February 14, 2002 which caused these to be listed was considered and made of record.

Applicant strongly urges consideration of all the art submitted in the Information Disclosure Statement filed on April 2, 2004.

Claim Rejections - 35 U.S.C. § 103

Claims 1-6 have been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsumoto in view of Hayashi and in further view of Moughanni et al. The Office Action rejects independent claim 1, the sole independent claim, over all three references in combination for the reasons given on pages 2-7, which repeats the rejections made in the non-final Office Action dated July 26, 2006. The Office Action repeats these reasons again at pages 7 to 9 in its 'Response to Arguments,' adding only an acknowledgement of the legal principles cited by the Applicant in the Response dated October 26, 2006 (the "October Response"). With all due respect, the Office Action wholly fails to address the Applicant's arguments in the October Response, the entirety of which are incorporated by reference and reasserted herein.

Matsumoto and Hayashi Fail to Meet Each and Every Limitation of the Claims

First, Matsumoto and Hayashi do not teach and cannot be combined to each and every limitation of the present invention. Claim 1 recites "a method of displaying an electronic mail comprising: receiving an electronic mail including a sentence as a conversion object sentence in a reception mode; automatically converting each of character string into a pictograph in said reception mode to produce a pictograph mixed sentence when said pictograph corresponding to said character string is defined . . ." At page 3, the Office Action admits that Matsumoto does not disclose that the mixed sentence is a pictograph mixed sentence and that the pictograph corresponding to said character string is defined. The Examiner then states that Hayashi "discloses an animation database stores the data of animation image about a character, retrieving a character that is inputted with a conversation operation, then converting it into a corresponding candidate character into an animation image (pictograph mixed sentence) (Hayashi, page 1)."

Turning first to Matsumoto, the primary reference, Matsumoto fails to teach method that can be combined to “**convert[] each of character string into a pictograph** in said reception mode to produce a pictograph mixed sentence **when said pictograph corresponding to said character string is defined.**” As the Matsumoto Abstract points out, when a word such as a proper noun – “Tomoko” – is inputted into the translation software, “[s]ince ‘Tomoko’ is a proper noun and there is no translation to the corresponding word, the part of ‘tomoko’ of an input sentence is put in parentheses ‘[‘and’]’ so as to process it as the unknown word.” Hence, Matsumoto’s software takes a single untranslatable noun – namely a proper noun (e.g. Tomoko or Bob) – in a translated sentence converts it into roman characters to **phonetically sound it out.** Indeed, not only does the Matsumoto reference wholly fail to teach converting a character string into a pictograph, but the because the targeted words in Matsumoto are unknown and untranslatable words such as proper nouns (e.g., Tomoko or Bob), it would be impossible to even use a pictograph to translate the word. Thus Matsumoto’s problem to be solved and its solution – “to provide a natural translated sentence without feeling of incompatibility by **displaying an unknown word** at a prescribed position in the translating sentence translated into a second language by a translation means by display converted **so as to be sounded by a conversion means**” – cannot be combined with any of the cited art to form the present invention. In contrast, the invention according to claim 1 “converts each of character string into a pictograph in said reception mode to produce a pictograph mixed sentence **when said pictograph corresponding to said character string is defined.**”

Turning to Hayashi, Hayashi teaches **transliteration** software that is designed to assist a user in understanding kanji; it is learning software. First, **transliteration** is not the same thing as translation. Next, Hayashi is directed toward animations of single characters. Hayashi does not teach or suggest a device that

converts a **character string** into a pictograph. At best it shows **single character animation**, and hence cannot be combined with Matsumoto's teaching of setting off untranslatable words so as meet the claimed limitation of a "**pictograph mixed sentence** when said pictograph corresponding to said **character string** is defined."

No Motivation Exists for Combining Matsumoto and Hayashi

Next, as the Office Action acknowledged, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Claim 1 recites that the present invention can automatically convert each of the **character string** into a pictograph in said reception mode to produce a **pictograph mixed sentence**. Matsumoto's problem to be solved and its solution is "to provide a natural translated sentence without feeling of incompatibility by **displaying an unknown word [such as untranslatable proper nouns]** at a prescribed position in the translating sentence translated into a second language by a translation means by display converted **so as to be sounded by a conversion means.**" Matsumoto has absolutely no express or implicit teaching or suggestion whatsoever that indicates it can or should be combined with any device having pictographs or animation. Indeed, as Matsumoto is directed toward substituting roman letters for unknown and untranslatable proper nouns, pictograph functionality would be useless in Matsumoto.

As for Hayashi, the "various conversion functions" of Hayashi (cited as motivation in the Office Action) merely refers to the animation functions for the learning software. An exemplary animation image taught therein is an animation of making strokes for a Chinese character of a hieroglyphic character of kanji. The

disclosure is wholly directed toward **transliteration** and not translation, and only **single candidate alphabetic characters** are changed to an image about the candidate alphabetic character (e.g., kanji) while performing a transliteration of the alphabetic character. In short, when a single alphabetic character is displayed, the single alphabetic character can be transliterated, and the single character can be changed into an image about the alphabetic character. In contrast, claim 1 recites that the present invention can automatically convert each of the **character string** into a pictograph in said reception mode to produce a **pictograph mixed sentence**. There is no express teaching, or even a conceivable reason, for combining a device that performs transliteration- and not translation - of candidate single alphabetic characters (Hayashi) with a device that sets off untranslatable words for conversion (Matsumoto) so as to form the claimed invention, which “automatically convert[s] each of the character string into a pictograph in said reception mode to produce a pictograph mixed sentence.”

Matsumoto and Hayashi are Inoperable When Combined

Finally, for the reasons given above, the combination of Matsumoto and Hayashi not only fail to disclose the claimed invention, but would result in an inoperable one. As explained above, Matsumoto is a translation device for providing natural translated sentences. Its invention converts untranslatable words into roman letters so they can be sounded out. Matsumoto does this by setting off the unknown word in parentheses so as to process the unknown word. Hayashi, on the other hand, takes a single alphabetic letter and produces an animation. The combination would result in an invention that attempts to animate a single letter of a word that has previously been set off as unknown and untranslatable. This is a nonsensical result. In any event, whatever this combined device is, it surely cannot be a device that

"automatically converts each of character string into a pictograph in said reception mode to produce a pictograph mixed sentence when said pictograph corresponding to said character string is defined," as claimed in claim 1.

In short, Matsumoto and Hayashi do not combine so as to meet the limitations of claim 1. Moreover, there is absolutely no disclosure, teaching, or suggestion to combine the transliteration software of Hayashi with the translation device of Matsumoto such that it can produce the claimed invention. Finally, the combination results in an inoperable invention.

Moughanni's Page is Not E-mail

Claim 1 also recites receiving an electric **mail** including a sentence as a conversation object sentence in a reception mode. The Office Action admits that Matsumoto and Hayashi do not explicitly disclose the electronic message as an electronic mail. According to the Office Action, Moughanni discloses "a user of a pager receiving an electronic message (electronic mail) in a language of their own and the message (mail) is translated to the default language of the user (abstract)." As the Office Action acknowledges, Moughanni is directed toward a **paging** device and receiving pages. While the Office Action conclusorily equates pages with electronic mail, a **page is not an electronic mail and a pager does not receive electronic mail unless it is specifically configured to do so as a separate function.** Moughanni has no express or implicit teaching, disclosure, or suggestion that the device is anything other than a pager, and specifically limits all of its embodiments, claims and disclosure to a pager and paging input. Quite simply, Moughanni does not teach or suggest receiving electronic **mail**.

Matsumoto, Hayashi, and Moughanni, alone or taken together, do not teach each and every limitation of independent claim 1. Moreover, there is no teaching or suggestion for combining Matsumoto with Hayashi, and there is no teaching or suggestion for combining Moughanni with either Matsumoto or Hayashi much less the two taken together. Accordingly, the Applicant urges that claim 1 is allowable over the prior art of record.

Because claims 2-6 ultimately depend from claim 1, and because neither Matsumoto nor Hayashi nor Moughanni make up for the deficiencies of these references as they are applied to independent claim 1, the Applicant urges that all the pending claims are in condition for allowance. The Applicant urges reconsideration and withdrawal of the rejections.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

No fee is believed to be due for this Amendment. Should any fees be required, please charge such fees to Deposit Account No. 50-2215.

Dated: April 17, 2007

Respectfully submitted,

By /Brian M. McGuire/

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Registration No.: 55,445

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PTO/SB/08A (10-01)

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 1 Attorney Docket Number K2635.0058/P058 MAY 31 2002

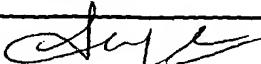
Complete if Known

Application Number	09/727,679
Filing Date	December 1, 2000
First Named Inventor	Shinichiro Iwata
Art Unit	N/A
Examiner Name	Not Yet Assigned

RECEIVED

U.S. PATENT DOCUMENTS					Technology Center 2100
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/	A	JP 11-110373	04-23-1999	Nippon Telegraph & Telephone	T ⁶ See Abstract, Fig. 4

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
/	B	Search Report, UK, dated 14 February 2002			
/	C	WPI, EPODOC, PAJ			
Examiner Signature					Date Considered 5/2/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

Atty Docket No.: K2635.0058/P058

Inventor: Shinichiro Iwata

Application No.: 09/727,679-Conf. #4233 **Filing Date:** December 1, 2000
Title: E-MAIL TERMINAL AUTOMATICALLY CONVERTING CHARACTER STRING
OF RECEPTION E-MAIL, AND E-MAIL SYSTEM

Documents Filed:

Request for Supplemental Notice of Allowance (2
pages)

Copy of Specification (pages 1-5)

Copy of Japanese Office Action dated February
25, 2003 (and English translation of relevant
portion)

Copy of stamped postcard indicating receipt by
the U.S. Patent Office of IDS dated 03/20/2003

Via: HAND DELIVERY

Sender's Initials: EAM/camf

Date: July 1, 2004

Docket No.: K2635.0058/P058
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Shinichiro Iwata

Allowed: May 17, 2004

Application No.: 09/727,679

Confirmation No.: 4233

Filed: December 1, 2000

Art Unit: 2176

For: E-MAIL TERMINAL AUTOMATICALLY
CONVERTING CHARACTER STRING OF
RECEPTION E-MAIL, AND E-MAIL
SYSTEM

Examiner: S. Shah

REQUEST FOR SUPPLEMENTAL NOTICE OF ALLOWANCE

Attn: MS Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant received a Notice of Allowance dated May 17, 2004.

During final review of the allowed application, Applicant note that the Information Disclosure Statements of December 1, 2000 and March 20, 2003 were not acknowledged.

In the Notice of Allowance dated May 17, 2004, Examiner Shah indicated that concise explanations of the relevance of said Information Disclosure Statements were not included.

Applicant respectfully submits that the explanation of relevance is contained in the Specification of the Application, for the Information Disclosure Statement dated December 1, 2000. For the Examiner's convenience, Applicant enclose pages 1-5 of the Specification that pertain to the relevance of the references.

Applicant also enclose a copy of the postcard indicating receipt by the U.S. Patent Office of the Information Disclosure Statement dated March 20, 2003. The stamped postcard is proof that a copy of the Japanese Office Action dated February 25, 2003 (and English translation of relevant portion) was provided for the explanation of relevance of the cited references. Another copy of the English translation of said Japanese Office Action is enclosed.

Applicant respectfully requests that the Information Disclosure Statements dated December 1, 2000 and March 20, 2003 be acknowledged and considered for the above-referenced patent application, before payment of the issue fee.

Please charge any credits or deficiencies to our Deposit Account No. 50-2215.

Dated: July 1, 2004

Respectfully submitted,

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Atty Docket No.: K2635.0058/P058

Inventor: Shinichiro Iwata

Application No.: 09/727,679

Filing Date: December 1, 2000

Title: E-MAIL TERMINAL AUTOMATICALLY CONVERTING CHARACTER STRING
OF RECEPTION E-MAIL, AND E-MAIL SYSTEM

Documents Filed:

Information Disclosure Statement (5 pages)

SB 0/8 (Form PTO-1449)

Copy of References

Copy of Japanese Office Action dated 02/25/2003
(and English translation of relevant portion)

Status Inquiry



Via: PTO Daily Run

Sender's Initials: SIW/cmf

m.s.

Date: March 20, 2003

K2635.0058

Reason:

A. What are described in Claims 1 through 17 of this application are not to be granted patents as they do not meet the requirements as stipulated in Article 29, Clause 1 of the Law of Patents insofar as the following pointed are concerned:

Note:

What is described in Claim 1 is a receiving mail display method whereby, in connection with the display of the electronic mail that has been received at an electronic mail terminal device, the character rows in the mail sentences are automatically replaced by pictorial characters. It is believed to be a method that can be executed on the computer.

Nevertheless, it merely contains descriptions regarding the function of automatically replacing the character row in the mail sentences into pictorial characters in connection with the display of the electronic mail that has been received but does not contain any descriptions whatsoever as to how the hardware resources of the computer are to be used in specific terms. As the information processing by means of software is not specifically realized by employing hardware, it cannot be called the creation of a technical concept employing natural rules; therefore, it does not fall under the category of inventions as stipulated in Article 2 of the Law of Patents.

Regarding the receiving mail display method as described in Claims 2 through 6, further, the information processing based on software is not likewise specifically realized by employing hardware resources. Thus, it cannot be called the creation of a technical concept utilizing the natural law, and does not fall under the category of "inventions" as stipulated in Article 2 of the Law of Patents.

In addition, it can be stated in connection with the electronic mail terminal device as described in Claims 7 through 13 and

the receiving mail relay method as described in Claims 14 through 17, that the information processing by means of software is not likewise specifically realized by using hardware resources. Accordingly, it cannot be called the creation of a technical concept utilizing the law of nature and, as such, it does not fall under the category of inventions as stipulated in Article 2 of the Law of Patents.

B. The inventions according to Claims 1 through 17 of this application are such as could have easily been invented by a person having the ordinary knowledge in the technical field to which said inventions belonged prior to said application on the basis of the inventions which were described in the following publications that had been distributed either in Japan or in a foreign country prior to said application.

Accordingly, they are not to be granted patents pursuant to the stipulations contained in Article 29, Clause 2 of the Law of Patents.

Note:

(Reference should be made to the List of Cited References, Etc. for the cited references, etc.)

Cited Reference 1 describes the fact that, in the case where a pictorial writing is registered on a word in the text manuscript that is used in electronic mail, etc., conversion is made to said pictorial writing for display. In Cited Reference 2, likewise, there are descriptions to the effect that a part of the text manuscript is converted into pictorial writing.

Regarding Claims 2 and 9, moreover, the situation is the same as the reverse conversion from the so-called Chinese characters into Kana (Translator's Note: Japanese syllabary) writing. Thus, it is merely the addition of a technology that belongs to the realm of public knowledge.

C. The inventions according to Claims 1 through 17 of this application are the same as the inventions (utility models) that were described in the specifications or drawings that were attached at first to the patent (utility model registration) applications as listed below, which were the patent (utility model) applications prior to the date of said application and which were either published (issuance of the Official Gazette describing the patents or the issuance of the Official Gazette describing the utility models) or laid open to public inspection subsequent to said application.

In addition, the inventor of this application is not the same as the party making the above-mentioned inventions (utility models) according to the patent (utility model registration) applications prior to said application. At the time of this application, further, the applicant was not the same as the applicant of the above-mentioned patent (utility model registration) application. Accordingly, they are not to be granted patents pursuant to the stipulations contained in Article 29-2 of the Law of Patents.

Note:

(Reference should be made to the List of Cited Refe-

rences, Etc. for the cited references, etc.)

A device whereby a character row in the text manuscript of electronic mail is converted into pictorial writing for display is described in Cited References 3 through 5. Regarding Claims 2 and 9, moreover, reference should be made to Cited Reference 4, in particular.

If a reason for rejection is found anew, such a reason for rejection shall be notified to you.

List of Cited References, Etc.

1. Official Publication of Toku Kai Hei 11-110373
2. Official Publication of Toku Kai Hei 9-146938
3. Toku Gan Hei 11-106798 (Toku Kai 2000-299699)
4. Toku Gan Hei 11-231770 (Toku Kai 2001-56791)
5. Toku Gan Hei 10-268386 (Toku Kai 2000-102048)

整理番号 53209233

発送番号 051338

発送日 平成15年 2月25日 1 / 3

拒絶理由通知書

特許出願の番号

平成11年 特許願 第342055号

起案日

平成15年 2月14日

特許庁審査官

金子 幸一

8724 5L00

特許出願人代理人

境 廣巳 様

適用条文

第29条柱書、第29条第2項、第29条の2

この出願は、次の理由によって拒絶をすべきものである。これについて意見があれば、この通知書の発送の日から60日以内に意見書を提出して下さい。

理由

A この出願の請求項1～17に記載されたものは、下記の点で特許法第29条第1項柱書に規定する要件を満たしていないから、特許を受けることができない。

記

請求項1に記載されたものは、「電子メール端末装置において受信した電子メールを表示する際にメール文章内の文字列を縦文字に自動的に置き換えて表示する受信メール表示方法。」であって、コンピュータ上で実行される方法であると認められる。

しかしながら、ここでは単に「受信した電子メールを表示する際にメール文章内の文字列を縦文字に自動的に置き換えて表示する」との機能的記載があるのみで、具体的にコンピュータのハードウエア資源をどのように使用するのかがなんら記載されておらず、ソフトウェアによる情報処理がハードウエア資源を用いて具体的に実現されていないので、自然法則を利用した技術的思想の創作とは言えず、特許法第2条でいう「発明」に該当しないものである。

また、請求項2～6に記載された「受信メール表示方法」についても同様にソフトウェアによる情報処理がハードウエア資源を用いて具体的に実現されていないので、自然法則を利用した技術的思想の創作とは言えず、特許法第2条でいう「発明」に該当しないものである。

また、請求項7～13に記載の「電子メール端末装置」及び請求項14～17に記載の「受信メール中継方法」についても、同様にソフトウェアによる情報処理がハードウエア資源を用いて具体的に実現されていないので、自然法則を利用した技術的思想の創作とは言えず、特許法第2条でいう「発明」に該当しないものである。

発送番号 051338

2 / 3

B この出願の請求項1～17に係る発明は、その出願前日本国内又は外国において頒布された下記の刊行物に記載された発明に基いて、その出願前にその発明の属する技術の分野における通常の知識を有する者が容易に発明をすることができたものであるから、特許法第29条第2項の規定により特許を受けることができない。

記 (引用文献等については引用文献等一覧参照)

引用文献1には電子メール等で使用されるテキスト文書のうち、単語に絵文字が登録されている場合に該絵文字に変換して表示するものが記載されており、また、同様に引用文献2にも入力されたテキスト文書の一部を絵文字に変換するものが記載されている。

なお、請求項2及び9について、所謂漢字から仮名への逆変換と同じであり、単なる周知技術の付加に過ぎない。

C この出願の請求項1～17に係る発明は、その出願の日前の特許（実用新案登録）出願であって、その出願後に出願公告（特許掲載公報の発行又は実用新案掲載公報の発行）又は出願公開がされた下記の特許（実用新案登録）出願の願書に最初に添付された明細書又は図面に記載された発明（考案）と同一であり、しかも、この出願の発明者がその出願前の特許（実用新案登録）出願に係る上記の発明（考案）をした者と同一ではなく、またこの出願の時において、その出願人が上記特許（実用新案登録）出願の出願人と同一でもないので、特許法第29条の2の規定により、特許を受けることができない。

記 (引用文献等については引用文献等一覧参照)

電子メールのテキスト文書内の文字列を絵文字に変換して表示するものが引用文献3～5に記載されている。なお、請求項2及び9については特に引用文献4を参照されたい。

拒絶の理由が新たに発見された場合には拒絶の理由が通知される。

引 用 文 献 等 一 覧

1. 特開平11-110373号公報
2. 特開平9-146938号公報
3. 特願平11-106798号（特開2000-299699号）
4. 特願平11-231770号（特開2001-56791号）
5. 特願平10-268386号（特開2000-102048号）

Docket: K2635.0058
U.S. Serial 09/727,679

E-MAIL TERMINAL AUTOMATICALLY CONVERTING CHARACTER
STRING OF RECEPTION E-MAIL, AND E-MAIL SYSTEM

Background of the Invention

5 1. Field of the Invention

The present invention relates to an electronic mail terminal with a character string converting function and an electronic mail system.

2. Description of the Related Art

10 Recent years, a portable phone terminal is provided for a data transmission function in addition to a telephone function. The transmission and reception of an electronic mail is possible between such portable phone terminals by use of the data
15 transmission function of the portable phone terminal.
For this reason, in the portable phone terminal, it is generally made possible to input not only alphanumeric characters but also Japanese characters including Kanji characters. In this way, an advanced function
20 is requested for character input and character display, while the portable phone terminal is requested to have a small size and a light weight. Therefore, it is an important key to create a sentence efficiently with few keys and also to display the sentence efficiently
25 in a small display space.

Conventionally, a method of using a pictograph called an icon has been generally used in

such a situation. For example, a pictograph associated with a bicycle is used when the character string of "bicycle" is to be inputted. This allows the creation of a sentence to be made easy without
5 change the intention of the sentence, so that a display area can be saved. Such a technique is disclosed in Japanese Laid Open Patent Application (JP-A-Heisei 6-96056) as a first conventional example which describes a sentence creating technique using a
10 pictograph. In the first conventional example, it is supposed that the Japanese sentence of "はれならてにすをしよう" ("Harenara tenisuwo siyou"; "Let's play tennis, if whether is fine" in English) is inputted by a user and a pictograph conversion is instructed. In this
15 case, morpheme analysis is carried out to divide the Japanese sentence into the character strings of "はれ (hare)", "なら (nara)", "てにす (tenisu)", "を (wo)", and "しよう (siyou)". Then, a pictograph dictionary is used which stores a correspondence relation between
20 phonetic expression and the pictograph of the Japanese character string. The pictograph dictionary is searched based on the character strings to retrieve pictographs corresponding to the character strings of "hare" and "tenisu". In this case, if there are a
25 plurality of pictograph candidates for a single Japanese character string, the pictograph candidates are displayed for the user. The user selects one of

the displayed pictograph candidates.

By the way, an electronic mail system between the portable phone terminals has been conventionally constructed. However, in recent years, it has become
5 possible to connect the portable phone terminal to the Internet based on the standard of WAP (Wireless Application Protocol), so that an electronic mail which is sent on the Internet can be directly received by the portable phone terminal.

10 However, in the access to the Internet electronic mail by the portable phone terminal, there are following problems.

As the first problem, visibility is not good when the Internet electronic mail is displayed. As
15 mentioned above, the pictographs are used in the conventional electronic mail transmission and reception between the portable phone terminals. However, no countermeasure is generally taken in the Internet electronic mail. That is, the electronic
20 mail including pictographs cannot be sent. Therefore, when a long Internet electronic mail is displayed on a small display area of the portable phone terminal, a screen switching operation is required to switch the screens.

25 As the second problem, the whole sentence of an electronic mail sometimes can not be received when the long Internet electronic mail is received by the

portable phone terminal. The reason is that the maximum electronic mail length is determined in the portable phone terminal electronic mail system, and a part of the electronic mail exceeding the maximum 5 electronic mail length is not possible to be received by the portable phone terminal.

In conjunction with the above description, a communications system and a digital communication terminal are disclosed in Japanese Laid Open Patent 10 Application (JP-A-Heisei 10-98544). In this reference, a control unit (22) adds an originator number or various messages, which are inputted from a key input section (21) to a sub-address data which should be transmitted to a terminal on the side of reception on 15 originating call. Also, the control unit (22) adds a code to the head of the data to identify a classification of the data. Next, a transmitting and receiving section (10) and a communication control section (11) transmit the above sub-address data to 20 the terminal on the side of reception on the originating call. On the other hand, in call arrival, a reception sub address recognizing section (15) receives the sub-address data, which is transmitted from the terminal on the side of transmission. The 25 control unit (22) starts up a free character converting section (16), a fixed form sentence converting section (17), a pictograph converting

section (18), and an originator number converting section (19) based on the code added to the sub-address data, and decodes the received data. The decoded data such as the originator number and the 5 various messages are displayed on a display section. In this way, a message notice function and an originator number notice function can be realized between the different kinds of communications systems.

Also, an image processing apparatus is 10 disclosed in Japanese Laid Open Patent Application (JP-A-Heisei 9-325958). In this reference, a character string before conversion is displayed in a display area (905) of a conversion screen, and a character string after the conversion is displayed in 15 a display area (906). These character strings are displayed in units of rows character by character. A character string of "もじをへんかんする" is specified and a pictograph converting button (1202) is clicked. At that time, pictographs corresponding to the string are 20 carried to arrangement positions of the pictographs by a hamster CH1. The pictograph CH2 corresponding to the character string of "へん" before the conversion is carried out above of the character of "^". Then, the character of "ん" is deleted from the screen.